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Adolescents as perpetrators of aggression within the family

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Abstract

Although family violence perpetrated by juveniles has been acknowledged as a potentially serious form of violence for over 30 years, scientific studies have been limited to examining the incidence and form of home violence. The present study examined the prevalence of family aggression as perpetrated by youths; we examined groups drawn from clinic-referred and forensic samples. Two audits of case files were conducted to systematically document aggression perpetrated by referred youths toward their family members. The purpose of the first audit was fourfold: i) to identify the incidence of the perpetration of family aggression among clinical and forensic samples; ii) to identify whether there were any reports of weapon use during aggressive episodes; iii) to identify the target of family aggression (parents or siblings); and iv) to identify the form of aggression perpetrated (verbal or physical). The second audit aimed to replicate the findings and to show that the results were not due to differences in multiple deprivation indices, clinical diagnosis of disruptive behavior disorders, and placement into alternative care. A sampling strategy was designed to audit the case notes of 25 recent forensic Child and Adolescent Mental Health Service (CAMHS) cases and 25 demographically similar clinic-referred CAMHS cases in the first audit; and 35 forensic cases and 35 demographically similar clinic-referred CAMHS cases in the second audit. Using ordinal chi-square, the forensic sample (audit 1 = 64%; audit 2 = 82.9%) had greater instances of family violence than the clinical sample (audit 1 = 32%; audit 2 = 28.6%). They were more likely to use a weapon (audit 1 = 69%; audit 2 = 65.5%) compared to the clinical sample (audit 1 and 2 = 0%). Examining only the aggressive groups, there was more perpetration of aggression toward parents (audit 1, forensic = 92%, clinical = 75%; audit 2, forensic = 55.17%, clinical = 40%) than toward siblings (audit 1, forensic = 43%, clinical = 50%; audit 2, forensic = 27.58%, clinical = 30%). Based on these findings, we would urge

professionals who work within the child mental health, particularly the forensic area, to systematically collect reports of aggression perpetrated toward family members.

Keywords: Aggression; Forensic; Mental health; Parent abuse; Sibling abuse

1. Introduction

Recently, perpetration of aggression toward family members by young people has been the focus of research which seeks to understand inter-sibling aggression (Khan & Cooke, 2013) and aggression toward parents (Ibabe, Jaurequizar, & Diaz, 2009). Based on prevalence data, sibling aggression is the most common form of aggression at home (Eriksen & Jensen, 2006). In a previous study, about 60% to 80% of the study's participants were victims of inter-sibling aggression (Goodwin & Roscoe, 1990). In a college sample (Hoffman, Kiecolt, & Edwards, 2005), about 69% out of 928 students admitted to committing an aggressive act toward their similarly aged siblings. That is, 60% disclosed that they had pushed, shoved, or grabbed their siblings during a fight; 40% had threatened to hurt their siblings; 35% had hit their siblings with either their bare hands or an object; 5% had threatened their siblings with a weapon or used a weapon to hurt them; some had burned, choked, or beaten their siblings. Therefore, the figures show that domestic violence by young people is an emerging problem.

Although family violence perpetrated by juveniles has been acknowledged as a potentially serious form of violence for over 30 years, scientific studies have been limited to examining the incidence and form of aggression against siblings (Purcell, Baksheev, & Mullen, 2014). Among a community sample from the UK Household Longitudinal Study, 35.6% (n=4,237) of youth between the ages of 10 to 15 perpetrated aggression toward their siblings. The most highly reported type of sibling aggression among community sample was physical aggression (28.1%) and verbal aggression (26.5%) (Tippett & Wolke, 2014). If sibling violence is relatively common among community sample, it may be that family violence is more often perpetrated in the context of child psychopathology and criminal behavior. A study conducted with youths who were detained for committing antisocial or aggressive behavior found that almost 90% (n=111) had admitted to committing severe

aggression toward their siblings. About 80% forcefully punched their siblings, 72.9% forcefully kicked or bite their siblings, and 57.6% had thrown heavy or sharp objects at their siblings (Khan & Cooke, 2013). Thus, the most common type of aggression perpetrated toward siblings was physical.

Examining community and clinical samples, in contrast to detained or adjudicated youths can be worthwhile, because most live continuously with their family, possibly increasing the risk of conflict and subsequent aggression. There may be higher chances of aggression toward family members with whom one interacts with most often – siblings. Also, conflict may result because siblings compete for household resources and for parental attention. Thus, sibling aggression may be common for multiple reasons. However, some youths perpetrate aggression more generally in the household, essentially dominating the household.

A particularly neglected area of research is the incidence and form of aggression that is perpetrated by youths toward their parents. Yet, existing research shows that parents have been the target of youth aggression at home. Mothers have a higher tendency to be victimized by their children as compared to fathers (Walsh & Krienert, 2007). Based on public prosecution files of 413 juveniles in Spain, 97% of the juveniles had victimized their mother (Ibabe & Jaureguizar, 2010). Furthermore, a study that examined 438 family violence cases from court records showed that 85% of the abused victims were parents and about 64% of them were mothers. The remaining cases reported aggression toward siblings and other family members (Purcell et al., 2014). Another study that compared parent-reported aggression within community and clinical samples found that 28.3% of clinic-referred sample had perpetrated violence toward their mothers, as compared to 17.3% in the non-clinical sample (Kolko, Kazdin, & Day, 1996). Therefore, child-to-parent aggression is prevalent and possibly more prevalent than sibling aggression.

As shown above, aggression perpetrated toward parents may differ among different sample groups. A prior study on 231 adolescents from the community (n=125, non-offender) and prison (n=106, offender) found that 16% and 73% of them, respectively, perpetrated physical aggression toward their parents (Ibabe, Arnoso, & Elgorriaga, 2014). A similar study which examined a sample of 606 clinic-referred adolescents reported that 12.2% had perpetrated physical aggression toward one of their parents. A milder form of physical aggression was reported more frequently (e.g., pushing and grabbing) compared to more severe aggression (e.g., beating). However, no weapons were reportedly used by the clinic-referred sample (Nock & Kazdin, 2002). Among the incarcerated sample, about 67% committed both physical and verbal aggression; 29% committed only physical abuse, and 4% verbal abuse toward their parents (Ibabe & Jaureguizar, 2010). Therefore, the type of sample one investigates may affect the incidence of parent aggression, with higher incidences among forensic sample.

However, it is unknown whether community and forensic samples differ in the target of aggression within the family. Forensic sample, for example, may be generalist in their aggression, perpetrating violence equally toward their parents and siblings. They may be more likely to seek dominance in the household through the use of aggression and violence. Although a number of studies have been conducted on family aggression, family aggression perpetrated by adolescents may still be underestimated due to the concealed nature of such acts (Gebo, 2007). In some cases, parents may feel ashamed to report that they were victimized by their children or might mistake sibling aggression as normal sibling rivalry. In the past, sibling aggression was not recognized by the criminal justice system, because it was considered a part of the typical growing-up process (Eriksen & Jensen, 2006). The court also tends to be more lenient toward family aggression offenders, particularly when they are children, compared to a non-family member who has committed similar crimes (Dawson,

2004; Gebo, 2007). In the UK, adolescent-to-parent aggression is not considered domestic violence if the perpetrator is under the age of 16 years. Therefore, to date, there are no collected data from the British Crime Survey on domestic violence perpetrated by youths (Condry & Miles, 2014), making it difficult to establish the prevalence of youth aggression toward parents and siblings (although such limitations are not restricted to the UK). For this reason, examining case files of clinic-referred and forensic samples may be necessary to start to uncover the prevalence. Yet, there are no existing studies, to our knowledge, which examine both child to parent and sibling aggression among clinical and forensic samples.

The present study examined the prevalence of aggression within the family perpetrated by youths drawn from clinic-referred and forensic samples. We conducted two audits of case files to systematically document significant aggression by youths toward family members. The purpose of the first audit was fourfold: i) to identify the incidence perpetration of family aggression among clinical and forensic samples; ii) to identify whether there was any report of weapon use during aggressive episodes; iii) to identify the target of family aggression (parents or siblings); and iv) to identify the form of aggression perpetrated (i.e., verbal or physical). We hypothesized that: i) the forensic sample would perpetrate more family aggression compared to the clinical sample; ii) weapon use would be more prevalent among the forensic sample as compared to the clinical sample; iii) parent aggression might be more prevalent than sibling aggression; and iv) physical aggression would be more prevalent as compared to verbal aggression. In addition to the first audit, we added three more objectives to our second audit to examine whether there were other factors that might explain our findings. The objectives were: i) to determine if the clinical and forensic samples differed on indices of multiple deprivation; ii) to determine if the clinical and forensic samples differed with respect to diagnoses of disruptive behavior disorders; and iii) to identify whether the samples differed if they reside with their biological parents. In this second audit,

we considered the possibility that the two groups would differ, with the expectation that the forensic sample might live in more deprived conditions, have more prevalence of disruptive behavior disorders, and have many more in alternative care. These differences could then explain the forensic sample being more aggressive in the home. This was examined in the second audit.

2. Method

The cases analyzed were obtained from a retrospective clinical audit of the electronic case notes of young people who had been referred to three different child and adolescent mental health service (CAMHS) teams within the National Health Service (NHS) mental health Trust in the North-East of England (Tees, Esk and Wear Valleys NHS Foundation Trust). The aim of the audit was to evaluate the documentation of aggression perpetrated by young people against family members in the family home.

CAMHS in England is organised based on a four-tiered model, with the severity and complexity of cases increasing from tier 1 through tier 4. Tier 1 (universal) services include general practitioners (family doctors) and schools, and have a general role in promoting the emotional and mental health needs of children and young people. Tier 2 (targeted) services include primary mental health workers and other mental health specialists working in universal services to provide treatment for children and young people with less severe mental health needs. Tier 3 (specialist) services are multidisciplinary teams of mental health professionals that provide assessment and treatment to children and young people with more severe and complex needs. Tier 4 services provide for children and young people with the most severe, complex, and persistent needs. These include inpatient units, day units and highly specialised outpatient teams.

The CAMHS teams that were audited were:

1. Team A tier 3 CAMHS (for the first audit). The team provides specialised assessment and intervention for children and young people up to the age of 18 with mental health disorders. It serves a local population of approximately 42,000 under-18's (total population approximately 192,000).
2. Team B tier 2-3 CAMHS (for the second audit). The team provides targeted or specialised assessment and intervention for children and young people up to the age of 18 with mental health disorders, serving a local population of approximately 31,600 under-18's (total population approximately 138,744).
3. The Adolescent Forensic Outpatient Team (Forensic CAMHS) (for the first and second audit). This tier 4 services provide specialized assessment and intervention to children and young people aged between 10 and 17 with mental health disorders and a profile of serious offending (e.g. interpersonal violence, sexual offences, fire setting) and/or significant or increasing risk to others who reside within the conurbation. It represents a population of about 53,000 10-17 year-olds (approximately 120,000 under-18's & 558,000 total population). Referrals usually come from local CAMHS teams, youth offending teams, courts and social services.

The case notes were audited in two separate instances. The following section will discuss the methodology of the first and second audit.

2.1 First Audit

A sampling strategy was designed to audit the case notes of 25 recent Forensic CAMHS cases and 25 demographically similar Team A CAMHS cases. First, the Forensic CAMHS referrals log was used to select 25 most recent cases referred which met the pre-defined inclusion and exclusion criteria. The inclusion criterion was: 1) cases where an assessment had been completed. The exclusion criteria were: 1) out-of-area referrals; 2) rejected referrals; and 3) failed or incomplete assessments e.g. due to non-attendance or

cancellations. Second, the selected Forensic CAMHS cases were grouped by age and gender. Finally, the Team A CAMHS referrals log was used to select the 25 most recent cases which met the inclusion and exclusion criteria (as above) and also matched the Forensic CAMHS cases for gender and age.

2.1.1 Measures

An audit tool was devised, in order to ask a series of questions and a coding system was designed. For each included case, electronic case notes were used to answer the questions in the audit tool and the data were entered into a spreadsheet.

The questions included:

1. Age & gender
2. Team: Team A CAMHS or Forensic CAMHS
3. Aggression against family members: yes or no

If aggression was present, this led to questions on:

1. The quality of documentation: This was coded as inadequate, adequate or good.
2. The target of aggression: This was coded as parent or guardian, sibling, grandparent, other family member, or not documented. Multiple codes were used if necessary, for example aggression against parents and siblings.
3. The frequency of aggression
4. The type of aggression: This was coded as verbal, physical, other or not documented.

It can be clarified that all physical aggression cases were accompanied by verbal aggression and all verbal aggression cases reported were solely verbal.

5. The severity of aggression
6. Use of a weapon: This was coded as yes or no. If 'yes', the type of weapon was specified as a free-text comment and there was a further question on whether the weapon was used as a threat or if actual injury was caused.

7. The health care professional's actions in response to the reported aggression (e.g. advising the family to contact the police or social services) and the adequacy of this.

The full text of the audit tool and coding system is available from the second author on request. Formal ethical approval was not required for the study, since it was an audit done by internal staff. No patient-identifiable information was collected, in order to preserve confidentiality.

2.1.2 Procedure

All data were collected between August and September 2013. Included cases were referred between September 2012 and August 2013. A total of 70 sets of case notes were accessed, of which 50 met the inclusion and exclusion criteria (25 from Forensic CAMHS and 25 from Team A CAMHS). Aggression against family members was documented in 25 of the 50 cases (50%).

2.1.3 Sample

Characteristics of sample. Forty-eight of the 50 cases were male (96%). Among the Forensic CAMHS cases, 24 were male and one was female, so this was intentionally matched in the Team A CAMHS sample. The average age was 15.18 years ($SD = 1.60$, median = 15, range 11-17 years).

Characteristics of aggression cases. All of the 25 aggression cases were male. The average age was 15.28 years ($SD = 1.46$, median = 15, range 12-17 years). Sixteen of the 25 aggression cases (64%) were from the Forensic CAMHS team and the other eight (36%) were from the Team A CAMHS.

Missing data/completeness of sample. Nine cases were deemed to have inadequate documentation due to data not being available on type, target, frequency and/or severity of aggression. As data were most commonly missing on severity and frequency, these variables were removed from analysis. Following this adjustment, seven of the cases still had missing

data for type and/or target of aggression. Three additional cases had missing data for target of aggression. For data analysis, denominators were adjusted as necessary for type and target of aggression.

2.2 Second Audit

For the second audit, the same sampling strategy was designed to audit the case notes of 35 recent Forensic CAMHS cases and 35 demographically similar Team B CAMHS cases.

The inclusion and exclusion criteria were also replicated from that of the first audit.

2.2.1 Measures

The second audit also replicated the questions and coding system from the first audit. However, we added extra measures in the second audit to strengthen our findings.

The added questions when aggression was present were:

1. Index of Multiple Deprivation (IMD): The Index of Multiple Deprivation (IMD) is a government index for comparing deprivation level between families according to their residential area (organized using postcode). Calculation of the deprivation covers a broad range of issues and refers to unmet needs due to a lack of various resources. Since the aim of the IMD is to measure a broader concept of multiple deprivation, it measures several distinct dimensions or domains of deprivation (not just financial). In the latest English Indices of Deprivation in 2015, 37 separate indicators were organized across seven distinct domains of deprivation (Department for Communities and Local Government, 2015). The indicators and domains were combined using appropriate weights to calculate the Index of Multiple Deprivation.
2. Disruptive behavior disorder symptoms: In this audit, the diagnoses were taken from the case notes as well as any indication of disruptive behavior problems. We classified those with disruptive behavior disorders as those with oppositional defiant disorder (ODD), attention deficit hyperactivity disorder (ADHD), callous-unemotional traits,

conduct disorder (CD), bullying, or notable angry outbursts. This classification was done based on past studies which have categorized disruptive behavior problems as ODD, ADHD, CD, lack of impulse control, or noncompliance (Byrd, Loeber, & Pardini, 2012). These can also be classified within the class of behaviors called externalizing symptoms¹ (Meins, Centifanti, Fernyhough, & Fishburn, 2013; Linares, 2006).

3. Number of biological and non-biological parents living in the same house
4. Number of siblings living in the same house
5. Number of older and younger siblings living in the same house
6. Number of male and female siblings living in the same house

The full text of the audit tool and coding system is available from the sixth author on request. Similar to the first audit, formal ethical approval was not required for the second audit. In order to preserve confidentiality, no patient-identifiable information was collected.

2.2.2 Procedure

Data for this second audit were collected between March and June 2015. The included cases were referred between February 2014 and March 2015. The Paris database was accessed to find case notes which met our inclusion and exclusion criteria. As a result of the search, 70 cases met our criteria (35 from Forensic CAMHS and 35 from Team B CAMHS). Aggression against family members was documented in 39 of the 70 cases (55.7%).

2.2.3 Sample

Characteristics of sample. The majority of the cases were male (n=62, 88.6%). Among the Forensic CAMHS cases, 31 were male and four were female and this was intentionally

¹ Internalizing behavior problem on the other hand, includes diagnosis such as shyness, social withdrawal, depressive symptoms, and anxiety (Dadds et al., 2008; Meins et al., 2013). The groups were tested on the difference in internalizing disorders, but was not discussed further since it was not included in the aim of this study.

matched in the Team B CAMHS sample. The average age was 15.18 years (SD = 1.60, median = 15, range 11-17 years).

Characteristics of aggression cases. Out of the 39 documented aggression cases, 35 were male and four were female. The average age was 15.23 years (SD = 1.34, median = 15, range 13-17 years). Twenty nine out of the 39 aggression cases (74.4%) were from the Forensic CAMHS team and the other 10 (25.6%) were from the Team B CAMHS.

Missing data/completeness of sample. In this second audit, the data were carefully collected to ensure they were complete. Since the severity and frequency of aggression were excluded in the analysis of the first audit, they were also excluded from the second audit analysis. Out of the 70 cases, two had missing data for target of aggression and one for the type of aggression. Further, eight had missing data for whether they had older siblings, four for whether they had a male sibling, and three of the cases were missing the diagnosis.

3. Results

3.1 Audit 1

3.1.1 Does prevalence of perpetration of family aggression differ by mental health unit/clinic sample?

Based on prior research findings in which youths who attend mental health clinics and youths who attend forensic mental health units both show aggression in their relationships with peers, we aimed to test if they also showed aggression toward parents and siblings. First, we examined whether the clinic sample differed in aggression toward family members from the forensic sample, using ordinal (linear) chi-square. The forensic sample had greater instances ($n = 16$; 64%) of family violence in their chart records than the clinic sample ($n = 8$; 32%), $\chi^2 = 5.03$, $p = .025$. Therefore, the forensic mental health sample was more aggressive toward family members.

3.1.2 Does use of a weapon differ by mental health unit/clinic sample?

We next examined whether the clinic sample differed from the forensic sample in the use of a weapon in the perpetration of aggression toward family members. The forensic sample, again, had greater instances ($n=9$; 69%) of reported use of a weapon in their charts, as compared to the clinic sample ($n=0$), $\chi^2 = 9.23$, $p = .002$. Six of these were edged weapons (e.g., knives) and the rest were blunt objects (e.g., mug). Among the nine instances of weapon use, three involved sustained injury reported in the chart records. Thus, the forensic sample was more likely to have reports of using (or threatening to use) a weapon against family members.

3.1.3 Who was the target of abuse in perpetration of family aggression?

To examine whether perpetration of family aggression was reported in chart records differentially toward siblings or parents, we examined the difference in the distribution of instances of aggression toward siblings and parents using a related-samples McNemar test. There were greater instances of aggression reported toward parents than toward siblings across the full sample, $p=.039$. Out of the 14 forensic cases with complete data, 13 had reports of aggression toward parents and six toward siblings; five perpetrated aggression toward both. Out of the four complete clinical sample cases, three had reports of aggression toward parents and two toward siblings, and one had targeted both. Thus, aggression perpetrated against parents was prevalent among clinical and forensic samples. Also aggression toward parents was more prevalent than aggression toward siblings.

3.1.4 How was the aggression perpetrated?

To examine whether the type of aggression perpetrated was mainly verbal or physical, we conducted a related-samples McNemar test. There were no differences in the instances of verbal and physical aggression, $p = .289$. Out of 13 complete forensic cases, nine had reports of verbal aggression and all had reports of physical aggression – several of a moderate level

of severity (e.g., broken fingers; punches to arms and torso). Out of the five clinical sample cases with complete data, three had reports of verbal and three were of physical aggression.

3.2 Audit 2

3.2.1 Does prevalence of family aggression differ by mental health unit/clinic sample?

Chi-square tests were used to evaluate whether aggression toward family members was associated with the type of sample. The result was statistically significant, $\chi^2 = 20.9$, $p < .001$. The forensic sample was significantly more likely to be aggressive toward their family ($n = 29$, 82.9%) than the clinical sample ($n = 10$, 28.6%). In other words, the forensic mental health sample showed more instances of aggression within the family.

3.2.2 Does use of a weapon differ by mental health unit/clinic sample?

Next, we examined whether there was a significant difference between the use of a weapon in the perpetration of aggression toward family members. We found that the forensic sample showed greater instances ($n = 19$, 65.5%) of reported use of a weapon in their chart record than the clinical sample ($n = 0$), $\chi^2 = 11.79$, $p < .001$. Therefore, the forensic sample in the second audit was more likely to have a record of using a weapon (either to harm or as a threat) toward their family members.

3.2.3 Who was the target of abuse in perpetration of family aggression?

Similar to the first audit, in our second audit we examined the prevalence of aggression toward parents and siblings, and whether that differed between mental health groups (forensic or clinical). The result from the McNemar test showed that the forensic and clinical samples did not differ in targeting parents versus siblings. Out of the 29 aggressive forensic samples, 16 of them targeted parents, eight reported aggression toward siblings, and seven of them perpetrated toward both parents and siblings. Out of the 10 aggressive clinical samples, four perpetrated aggression toward parents, three toward siblings, and two perpetrated toward both.

3.2.4 How was the aggression perpetrated?

A McNemar test was also conducted to examine whether the type of aggression perpetrated was verbal or physical. There were significant differences in instances of verbal and physical aggression, $p < .05$. This shows that the forensic and clinical samples were more likely to perpetrate physical aggression rather than verbal aggression. Out of the 29 aggressive forensic cases, 19 perpetrated verbal and 26 perpetrated physical aggression. Out of the 10 aggressive clinical cases, five perpetrated verbal aggression and five perpetrated physical aggression.

3.2.5 Does index of multiple deprivation differ by mental health unit/clinic sample?

An independent-samples t -test was used to compare the index of multiple deprivation between the clinical and forensic samples. Comparison of the forensic ($M = 11033.14$, $SD = 8365.32$) and clinical samples ($M = 5629.03$, $SD = 7658.14$) revealed significant differences between the groups $t(68) = 2.814$, $p < .01$. Therefore, our findings showed that the forensic sample was significantly more deprived compared to the clinical sample.

3.2.6 Does the presence of disruptive behavior problems differ by mental health unit/clinic sample?

Ordinal (linear) chi-square test was used to examine whether the clinical sample differed from the forensic sample in the prevalence of disruptive behavior disorders. We found that among the aggressive samples, those from the forensic mental health unit were more likely to have disruptive behavior disorders ($n = 17$, 48.6%) based on their chart record than those from the clinical mental health unit ($n = 7$, 21.9%), $\chi^2 = 5.182$, $p < .05^2$.

3.2.7 Does number of biological parents explain perpetration of family aggression?

Additionally, we also aimed to examine whether the number of biological parents

² Analysis was also conducted to see whether the two sample groups (clinical and forensic) differ in internalizing behavior disorders. We found that internalizing disorders significantly differed between our two sample groups. Those from the clinical mental health unit were more likely to have diagnosis for internalizing disorders ($n = 21$, 65.6%) than the forensic mental health unit ($n = 1$, 2.9%), $\chi^2 = 29.863$, $p < .001$.

residing in the same household may explain the instances of aggression perpetrated by adolescents from forensic and clinical mental health unit. A Chi-square test revealed no significant differences, $\chi^2 = 2.821$, $p = .244$. Therefore, among those who were aggressive, living with biological parents did not differentiate the forensic and clinical samples. We found that among the 29 forensic cases who were aggressive, eight did not reside with their biological parents, 16 resided with one of their biological parents, and five resided with both of their biological parents. Among the eight clinical sample cases (with complete data) who perpetrated aggression in the family, six resided with only one of their biological parents, while two resided with both biological parents.

3.2.8 Does having male siblings or older siblings explain perpetration of family aggression?

We examined whether having sibling(s), male sibling(s), or older sibling(s) would differ between samples. However, none of the chi-square tests conducted showed significant differences.

4. Discussion

The present study was the first to examine both aggression toward parents and siblings perpetrated by youths from within clinical and forensic mental health samples, both of which could pose a risk for perpetration of family aggression. Because we performed specific audits to examine the incidence, form, and target of family aggression, samples could be systematically matched and compared. Indeed, this level of control would be difficult to achieve with other study designs.

Based on both of our audits, as expected, we found that a majority of the forensic sample perpetrated aggression toward their family members as compared to the clinical sample in which only about one-third perpetrated aggression. Also, a majority of the forensic sample used a weapon when they perpetrated aggression toward their family members. We explored the incidence of the perpetration of aggression toward parents and siblings, which

had not been examined previously. Examining those who perpetrated aggression in the family, we found that almost all of the forensic and clinical samples had reports of parent aggression in their records, at a greater incidence than aggression toward siblings (from our first audit). However, in our second audit we did not find significant differences between the two sample groups, although the trend was in the same direction. We expected to find physical aggression as more prevalent compared to verbal aggression but we only found significant differences in the instances of verbal and physical aggression in our second audit, but not for the first audit. In the second audit, we found that the forensic and clinical samples were more likely to perpetrate physical aggression as compared to verbal aggression. Although we did not find significant differences in the instances of verbal and physical aggression in our first audit, our results show that the entire forensic sample and the majority of the clinical sample perpetrated physical aggression toward family members.

In our second audit, we found that the forensic sample was more deprived than the clinical sample. They were also more represented in disruptive behavior disorder diagnoses, including callous-unemotional traits which have been included as “limited prosocial emotions” in the DSM-V (American Psychiatric Association, 2013) as a specifier of conduct disorder. These traits designate a group of children with conduct disorder who cause more harm and more severe aggression than those without these traits (Frick et al., 2003) and typically do so for instrumental reasons (e.g., dominance; Pardini & Byrd, 2012).

We found the forensic sample was more aggressive than the clinical sample. A majority of them not only perpetrated aggression within the family, but would often use a weapon to cause harm or threaten their family members. Of importance, aggression cases that involved the use of a weapon were categorized as more severe in harm and were also reported to cause serious physical injuries compared to physical aggression perpetrated without a weapon (Tucker, Finkelhor, Turner, & Shattuck, 2013). Youths from our forensic mental

health sample had a history of antisocial or aggressive behavior (committing crimes such as fire-setting or interpersonal violence). Therefore, it is not surprising to find that the forensic sample had a significantly higher prevalence of aggression and weapon use than the clinical sample. In addition, they seemed to generalize their aggression toward many family members.

The present study extended prior research findings (Ibabe, Arnoso, & Elgorriaga, 2014; Khan & Cooke, 2013) by examining aggression perpetrated by two mental health samples and the use of weapons. Prior research that had examined family aggression among juvenile offenders found that the majority of the sample had used a weapon (i.e., heavy or sharp objects) to perpetrate aggression (Khan & Cooke, 2013), while research that examined clinic-referred youth found no weapon use (Nock & Kazdin, 2002). Consistent with prior research, we found that the forensic sample, as compared to the clinic-referred sample was more aggressive and more likely to have weapon used documented in their case files.

Parent aggression was found to be more prevalent as compared to sibling aggression in our first audit of the forensic and clinic-referred samples, although the finding was not significant in the second audit. Still, a majority of our sample in both audits targeted parents more often than they did siblings. One possible explanation is that this may reflect the parents and professionals (e.g. social worker, therapist) who are reluctant to share regarding sibling aggression due to being afraid of the possible implications. If there is a child in the house that could possibly harm other siblings, the Local Safeguarding Children Board may become involved. This may not be a preferred route by either parents or professionals working with the family. Our findings are consistent with prior research using youths of a similar age to those in the present study. That is, prior research has found greater occurrence of aggression perpetrated toward parents than toward siblings (Purcell et al., 2014). In contrast, there are studies that have found sibling aggression to be more common in comparison to other types of domestic violence within the household (Roscoe, Goodwin, & Kennedy, 1987; Straus,

Gellas, & Steinmeitz, 1980; Wiehe, 1996). Yet, our study is unique in examining both parent and sibling aggression within atypically developing youths.

Among the present study's clinical and forensic samples, we could not confirm in the first audit that physical aggression was more likely to be perpetrated as compared to verbal aggression, but the finding was significant in the second audit. The majority of our sample had greater reports of physical aggression than verbal aggression. In support, a recent study also found more physical assault perpetrated by youths toward their family members as compared to verbal threats (Purcell et al., 2014). In contrast, a recent study found greater perpetration of verbal threats, such as name calling and teasing, as compared to physical threats, such as throwing object at the victim, hitting with a fist, or striking someone with an object (Goodwin & Roscoe, 1990). The main reason that we found more physical aggression than verbal aggression is most likely due to the nature of our sample, which was derived from an atypically developing sample. The non-significant effect in the first audit may have been due to a lack of power to detect this effect.

In explaining the differences between the forensic and clinical samples, findings from our second audit showed that the forensic sample was more likely to be living in a more deprived area. In the UK, the Index of Multiple Deprivation (IMD) is a government index used to compare the deprivation level between families based on the area in which they live. Within the aggressive samples, we also found that the forensic sample was more likely to have disruptive behavior disorders compared to the clinical sample. Those with disruptive behavior disorders may lack control over their emotions – including having difficulties in managing relationships with others, rule breaking, and experiencing angry outbursts, all of which may put them at risk of aggressive behavior (Achenbach & Edelbrock, 1978). This was also supported by the results from a prior study where young people who were aggressive

toward their parents displayed externalizing symptoms as well as antisocial and delinquent behaviors (Jaureguizar, Ibabe, & Straus, 2013).

We found that aggression toward parents/guardians was not more frequent for those residing with non-biological parents. Prior research found that young people who reside with both biological parents have fewer behavioral problems as compared to those with single-parent, cohabiting stepfather/mother, and married stepfather/mother families (Booth, Scott, & King, 2010). However, prior research was concerned with family structures affecting behavior problems and delinquency rather than incidences of family aggression. Research conducted by Williams et al. (2007) found that children who grew up with older brothers tend to be more aggressive over time (on average) as compared to those who had older sisters. Yet, our findings showed that the presence of siblings who were male or older did not significantly explain differences in aggression among our samples.

Some limitations should be considered when placing our results into the context of the broader research literature. Although we found differences in the incidences of aggression perpetrated by forensic and clinical samples toward their family members, we did not have specific information on the target of aggression. Future research should differentiate between perpetration of aggression toward mothers or fathers instead of parents in general. Also, we relied on case file records for the audit. Thus, we did not interview families about their experience of family aggression. This limits the detail that we could go into. Although case files document all treatment notes during the psychotherapy process, and aggression is likely to be divulged through this therapeutic process, we do not know if some parents or children were reticent to speak about domestic violence. Multiple methods (e.g., self-report, case files, court/police records) would be preferable. In addition, we have included cases from tier 2 and tier 3 CAMHS in the second audit to represent the clinical sample. As compared to tier 3, tier

2 could have less severe cases. This could have potential impact on our findings.

Nevertheless, our findings are consistent in the first and second audit.

The present study has several strengths, which gives us confidence in the results found. One strength is our systematic sampling strategy to select cases from the clinical mental health records and matched on gender and age with the forensic mental health sample. This strategy enabled us to compare robustly between our two sample groups, both of which were drawn from the National Health Service. In addition, the study contributed to the documentation of aggression toward family members by young people particularly in the UK which has been lacking due to age restrictions in UK law on domestic violence.

This research is important, because regardless of the source of aggression, experiencing aggression in the home can have a detrimental effect, particularly on young children. For instance, exposure to aggression perpetrated by siblings is more likely to lead to psychological and school dysfunctions (Linares, 2006). Additionally, research has found that individuals who were victims of family abuse or those who witnessed abuse when they were younger had a greater tendency to abuse others later in life. Moreover, youth who perpetrated aggression against their siblings showed a greater tendency to be aggressive in the future within their own family or with others outside the family (Mihalic & Elliott, 1997).

The results suggest that young people's aggression perpetration within the family is prevalent among clinical sample. In order to deal with young people's aggressive behavior within the home, there is a need to develop a more targeted intervention to equip parents with the skills to deal with aggressive children in the family. Non Violent Resistance (NVR) could be offered to parents with children who are aggressive toward family members. NVR is a method introduced by Omer (2004), which offers parents knowledge to deal with their children in a diplomatic and non-violent way (e.g. delay responses, increase parental presence, de-escalate situations, and let trusted people know about the problem to gather social support

in resisting violent and controlling behaviors) instead of trying to handle aggressive behavior with further aggression (Omer, 2004). NVR is a method that has been proven effective and successful in several studies with parents with aggressive children (Omer, 2004; Weinblatt & Omer, 2008). It has also been used in the UK and is shown to be successful and cost-effective (Newman, Fagan, & Webb, 2014).

Practically, if young people offend at home they might be at risk of offending outside of the home. If perpetration outside of the home is identified early enough, intervention could be delivered through school, which can then be generalized to behavior at home. Two longitudinal studies called “The High/Scope Perry Preschool study” (Schweinhart et al., 2005) and “The Cambridge Study in Delinquent Development” (Farrington et al., 2006) have followed up their samples for over 40 years. The earlier study found that those in quality preschool education program had significantly lower arrests for crimes and were sentenced to fewer months in prison compared to those who did not receive the quality education (Schweinhart et al., 2005). The latter found that a majority of young people who were convicted at a younger age (10 to 13 years old or 14 to 16 years old) did not stop offending after their first crime but tended to violate the law for an average of 13 years. They also committed many more offences and had longer criminal careers than the late-onset (Farrington et al., 2006). This shows that the most prolific offenders start at an early age, so there is a need for preventing early-onset offending. Therefore, early intervention programs in school that could reduce crime among young people can be cost-effective for society in the long run.

Mental health experts also relate family aggression with mental illness, where children and adolescents who experienced aggression at home tend to have poorer mental health outcomes (Tucker, Finkelhor, Turner, & Shattuck, 2013). Therefore, we would urge professionals who work within the child mental health system, particularly those who work

with forensic-referred groups, to systematically collect reports of aggression perpetrated toward family members.

The occurrence of child-to-parent aggression and sibling aggression was prominent in our study, with the majority of the youths being responsible for committing family aggression. Within our two well-matched, atypically developing samples, from both of the audits, we found the forensic sample was more aggressive in the family than the clinical sample. The forensic sample, therefore, may be generalist when it comes to the perpetration of family violence.

Conflict of interest

The authors declare that they have no conflict of interest.

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Appendices

Population data from Office for National Statistics:

1. Town A

Age 0-17 (i.e. under 18) = 42123 *

Age 10-17 = 18220 *

Total population = 192406

2. Town B

Age 0-17 (i.e. under 18) = 31637 *

Age 10-17 = 13413 *

Total population = 138744

3. Total population in the conurbation = Town A + Town B+ Town C+ Town D

Age 0-17 = 121575 *

Age 10-17 = 53236 *

Total population = 558386

* = calculated by the first and second author from single age figures for different areas based on the Mid 2012 Resident Population Estimates (single year of age and sex for local

authorities in the United Kingdom). Data were adapted from the Office for National Statistics licensed under the Open Government Licence v.1.0:

Office for National Statistics. (2013). *Mid 2012 Resident Population Estimates*. Retrieved July 31, 2013 from <http://www.ons.gov.uk/ons/regional-statistics/index.html>